The Commector

University of Lowell Lowell, Mass.

Vol. 4 No. 23

April 19, 1979

Future PhD Programs In Applied Sciences

Although not yet finalized, PhD programs are being planned for Plastics Engineering, Nuclear Engineering, and Engineering Mechanics. Presently, the only programs available from the College of Pure and Applied Sciences are in the pure sciences, as in Chemistry and Physics. The main reason for planning the new programs is to expand the number of students who would be able to obtain a PhD from the University.

For the past eight to ten years, PhD graduates have been scarce. There are many reasons for this, the main one being that stipends paid to teaching assistants are not enough to compete with the high salaries earned on the job during the first few years. If the new programs are adopted as expected in September, these stipends will be increased in order to make it more worthwhile for graduate students to continue in the PhD programs.

Aside from the obvious reasons of prestige and funds from grants, there are many ways in which PhD programs greatly benefit the University. One is that the programs and research are transmitted to the undergraduate programs as well as in graduate programs. Each PhD graduate follows a course of research which is designed for his particular interests by his advisor. Because of this, the University benefits in many different areas. Through this research, the faculty is kept current in these same areas, and the undergraduate students eventually are transmitted this knowledge. Another way the undergraduate programs benefit is that, as research is done and new equipment is obtained with grants, more and more programs are accredited as part of the University. Therefore, PhD programs are very important for the entire University, not just graduate level programs

The new programs are presently in the process of being ratified by faculties of both the College of Pure and Applied Sciences and the College of Engineering. They have already been endorsed by the Administration, along with the President, and the Board of Trustees. It is hoped that they will begin in September, and will thus soon begin to benefit the University.

-Cathy Jarvi

Hill Calls Forum To Charge Econ. Dept. with Discrimination

Marianne Hill, recently denied reappointment as an economics instructor, is calling for a public forum to press her charge of political discrimination. Carol McDonough, chairperson of the economics department, has been invited to present the department's position at a debate to be held Monday, April 23, 3:00 P.M., Weed Lecture Hall One. South Campus.

Robert Innis, chairperson of the Philosophy Department, will chair the meeting. "Students want to hear the reasons the economics department has for firing me; and I want them to hear what the department has to say," states Ms. Hill. "The department is accountable to the students for the decisions it makes, and if they are serious educators they will respond to the call for a public forum. Violation of academic freedom is rightfully a matter of deep concern to the university community."

Speakers at the forum will include a representative from the American Civil Liberties Union, Professor Robert Wagner, and Professor Herbert Gintis from U. Mass. Amherst. Professor Gintis, who has published extensively in economic journals and is co-author of the book Schooling in Capitalist America, will speak on radical economics and political discrimination in universities. Gintis himself was threatened with dismissal from Harvard in the early 70's.

Department chairpersons from U. Mass. Boston, Boston State College and U. Lowell are calling for an investigation of the firing. Several professors and student groups here have endorsed the case, including the History Club, Public Affairs Club, Sociology Club, Students Organized for Public Education, the Philosophy Club, the Iranian Students Association and the African Students Association.

World Premiere Opera at ULowell

There will be a world premiere opera staged here at ULowell next month. On May 18 and 19 "The Station", written by the Czechoslavian composer Vaclav Nelhybel will be shown in Durgin Hall.

Nelhybel, who was a composer in residence last year at the University of Lowell College of Music, wrote "The Station" five years ago, however, it has never been performed. The setting is a train station in the late 19th century. The story revolves around

five people who must obey strict rules in order to get aboard a train bound for a "Promised Land".

A cast of students from the College of Music will open the program with a reading of the script. A fully staged opera with a professional cast will follow. Conducting the opera will be Willis Traphagan of the College of Music. The director is Mark Kaufman of the Merrimack Regional Theatre.

Admission is \$2.00 for students and \$5.00 for the general public.

ULowell Women's Crew Outrows Simmons College

On Sunday, April 8th, Coach Liz Angus took her crew to Boston to race Simmons College on the Charles. A stiff cross wind made conditions anything but easy. Lowell rowed out of the Weld Boathouse as did Simmons, and raced 1400 meters down Powerhouse Row (B.U. bridge to the Weeks footbridge).

The Woman's Varsity rowed very well, going off first at 10:15, despite problems at the start due to the stiff crosswinds. The Lowell Crew jumped ahead at the start and had a one boat length at 500 meters. Stroke Jeanne Denommee took the boat up the course at a 34 stroke, leading Lowell to two lengths open water at the finish.

The Women's J.V. went off after the varsity but didn't fare so

well. Lowell had four seats at the 400 meters but a crab finished the boat. The women fought to close the gap but at the line it was Simmons by four lengths open water.

Varsity- 1. Lowell (Bow Michelle Denommee, Bobbi Ransom, Becky Meier, Siri Wilbur, Audrey Laforge, Betsy Johnson, Ginny Janeiro, Stroke Jean Denommee, Cox Colleen Murphy) 6:09; Simmons - 6:27.

J.V.- 1. Simmons 6:45; 2. Lowell (Bow Connie Catin, Dianne Mendes, Mary Montesalvo, Mary Lavery, Debbie Gaumont, Martha Haynes, Andree Vigent, Stroke Nancy Maloney, Cox Debbie Arnard) 7:20.

See racing Schedule on Page 2.



ULowell students wait for busses to take them to a demonstration at the statehouse against state college tuition increases. Approximately 1000 people from across the state attended the protest, including the ULowell contingent of 60 students.

Library Notice

A representative from the Library will be present during the registration period April 23-25 to collect payment for unpaid fines and unreturned library material

Clear up your overdues now, and avoid extra problems during registration.

University of Lowell Crew Spring Season 1979 Racing Schedule

April 7, 1979	Assumption 9:00-2:00pm
	Regatta Point, Lake Quinsigamond, Worcester
April 8, 1979	Simmons College 10:00am
	Weld Boathouse, Charles River, Boston
April 17, 1979	Assumption 4:30pm
	Lowell Boathouse, Merrimack River, Lowell
April 21, 1979	Davenport Cup 9:00-3:00pm
	Regatta Point, Lake Quinsigamond, Worcester
April 28, 1979	President's Cup 6:00-3:00pm
	Poughkeepsie, N.Y., Marist College
May 5, 1979	New England Invitationals 7:00-3:00pm
	Regatta Point, Lake Quinsigamond, Worcester
	Regatta I offit, Lake Quinsigamond, worcester

Be A ULowell Cheerleader

If you are interested in sports, have a little school spirit! Come Tuesday, April 24 at 11:30 to the Costello Gymnasium.

No Previous Experience is Required!

If you are unable to attend, but are interested in joining us, please contact Denise, Box #920 or Mary, Box #1536. W anticipate a great year in sports so show your enthusiasm by joining

Last year we were #1 in football. We had two recordbreaking basketball players in 1978-79.

us at cheering the Chiefs on to VICTORY!



Letters To The Editor

A Moonstone Rebuttal

In response to Leslie C. Bland's "Moonstone Review", I speak for myself and the staff in defending our efforts against her bitter, emotional attack. Ms. Bland claims that Moonstone "was conceived to represent the ultimate of literate ability" (sic) and failed. However, this and others of Ms. Bland's statements are not only vague and unsupported but basically untrue Moonstone was conceived as an outlet for creative work by ULowell members. That the work contained within be the 'ultimate' in literary expression was not our assertion or expectation, but we did feel that the best submissions should be the ones published and made our selections on that premise. Anonymity was complete except where forfeited by the submittor. After selections were made and names were matched to box numbers, the dominance of staff-produced work was realized and dealt with to the extent that the material submitted enabled us. There were only three poems among the material not originally selected that were judged of merit enough to be published, and these displaced

several staff works that anonymously had been judged superior. Except for a few borderline pieces, there was simply no other material worth publishing. We couldn't see displacing good work with mediocre.

It is interesting to note that Ms. Bland and at least several of the names which accompany her review are among those, along with more than several Moonstone staffers, whose submitted works did not appear in the magazine. We can not apologize for this; we firmly believe that the material published was the best we received. We are willing to discuss and defend our choices with anyone, and would like to remind everyone that the only requisite for joining the staff is the desire to be on it. Anyone who wanted could have been on the selection committees this year, and those who disagree with our choices should join next years staff. And if there are any writers out there, as Ms. Bland says there are, possessing "as much talent, if not more, as some of those who have been published", we have not yet seen their work and hope they will submit something next year. -Walter Christiansen Jr.

Does Academic Freedom Really Exist At ULowell?

To Whom It May Concern:

Does academic freedom really exist here at the University of Lowell?

It has recently come to our attention that Marianne Hill, an instructor in the economics department, will not be reappointed for the next school semester. It is possible that this is a case of political discrimination.

Ms. Hill was told by the chairperson of her department, Carol McDough, that she would not be reappointed as the department needed someone stronger in statistics." Also, she was informed that her course did not supply students with an adequate background in micro-economics. Ms. Hill claims that in her courses she presents "radical as well as conventional approaches to the topics covered." There is a question as to whether or not her radical approach is the real reason behind her not being reappointed.

We feel that this matter should be examined and, thus we propose a public meeting to be held between the Chairperson, Carol McDonough, and Marianne

> The History Club -Peter Psarese, President Jeffrey Beckwitt, Vice President William Manchenton Jr., Treasurer Aimee Magazu, Secretary

Thanks From Election Committee

Dear Editor:

We would like to express our appreciation to our committee for its help during the Spring election, 1979. With a special thanks to: Mrs. Waterman, Richard Ciarletta, Ann Madensky, Cindi Niemaszyk, Jeff Ross, George Keene, Mary Gale Allard, Bill Donovan, Mike Favaloro, Sandy McKissick, Mike Haley, Cathy Jarvi, Gary Carr, Tom Tighe, Cindy

Metivire Payne, Marie Finocchiaro, Connie Catania, Eileen Goulart, Linda Souza, Fran Caruso, Alison Malloy, Tom Maroon, Bill Trainor, John Plunket, and Deans Donahue and King. Without all of you----Forget it!!!!!!

Thank you, -Bonnie Magoon Leise Galvao

The Connector

Karen Tilden

Librarian Bonnie Magoon

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John Zygilewicz

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Managing Editor John Zygilewicz

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Phone number: 453-1872

Business/Advertising Manager Bob Chenevert Circulation Manager Bonnie Comley Chief Technician Rick Allard

Note: There is no longer a South Campus Office. All copy must be left at the mailroom in Mahoney

Articles and copy are welcome if typed double spaced wih a 3-inch margin on the top of the first page. They must be received in: Mailrooms by 12:00, N. Campus office by 5:00 on the MONDAY preceding a Thursday issue. All Copy must contain the name and box no. of the contributor

The Connector is published every Thursday during the college year by the students of the University of Lowell, and opinions expressed in this paper are those of its authors or the Editorial Board, and are not necessarily the opinion of the University or its Student Body. The editors of The Connector realize their responsibility to the University community to present opposing views from responsible spokespersons.

The offices of The Connector are located on the fourth floor of the North Campus Student Union Building. Suite 426, 100 Pawtucket Street, Lowell.

Office Hours

M. 3pm-10pm W Ipm-10pm Th 3pm-10pm

Connector Staff Bruce Arakelian Frank Alix Mary Lazdowski Kevin Sullivan Barbara Chalmers Cathy Jarvi

Terri Bedard Cheryl Bills Rick Allard Dave Morton Joyce Pugh

lpm-5pm Beth Morton Don Spagnolo Beverly Downing Bob Weisman Martin Bartel Mary Howe Thomas O'Rourke Sandy Trombley Nancy Prendergast Kathy Sainato Eamonn Hobbs Dan Danecki

Photography Editor

Doug Haydock

0000 4/8 - 4/16

Floods, Tornadoes Hit South

Mother Nature was in an angry mood last week as heavy rains and tornadoes ravaged large parts of the South and Southeast. Over 110 tornadoes were set off in Texas, Oklahoma, Arkansas, and Louisiana including a record size tornado that swept through Wichita Falls, Texas. Fiftyeight people were killed along the Tex.-Okla. border and 20,000 people were left homeless in Wichita Falls alone. President Carter has declared the Wichita Falls area a disaster area.

In Alabama and Mississippi, over 30,000 people have been evacuated as up to twenty inches of rain fell in the area last week, causing rivers to rise up to eighteen feet over flood level. The city of Northport, Alabama has been buried by the waters which have not crested yet. Damage is expected to be in the millions of dollars. In Jackson, Miss., 25,000 people have been evacuated as the capital city is under five feet of water as flood waters have risen to 25 feet above flood stage.

Natural disasters were prevalent throughout the world also. On Easter Sunday, southern Yugoslavia was exposed to the worst earthquake in its history. 235 people have been killed by the quake, which registered 7.2 on the Richter scale, with the search for more bodies continuing.

On St. Vincent Island in the Caribbean, Mt. Soufriere, a volcano which has been dormant for 77 years, erupted three times on Saturday killing two children. US officials are considering a sea evacuation of the 17,000 people who live in the danger zone at the foot of the mountain.

The Ugandan regime of Idi Amin ended last week as Tanzanian troops and Ugandan rebels swept into the capital city of Kampala. The invaders met almost no resistance in Kampala and were cheered by residents as they took over the city. Sixty-seven-year-old scholar Youssef Lule, the new president of the country, entered the city triumphantly on Saturday. His first act was to release information that 100 prisoners had been massacred by Amin's secret police just before Kampala fell. Amin's troops have also been reported to having committed atrocities as they flee the country.

Two defendants charged with the slayings of five men in the basement of the Blackfriars Pub in downtown Boston on June 27, 1978 were acquitted on all charges. The defendants, Robert Italiano and William Ierardi, managed to convince the jury that two witnesses were lying and a tape alleged to

have the voice of lerardi planning the narcotic-related killing did not contain his voice.

Both the Teamster truck drivers and Boston University faculty members reached tentative agreements ending their strikes last week. The Teamsters will get 30% wage increases over the next three years while BU professors ended up with the same agreement which had been made on April 2.

At the Three Mile Island nuclear plant, the reactor has been cooled to 250°F with cooling proceeding at about 1°F per hour. A cold shutdown (water temperature below 212°F) is expected by next weekend.

Jane Fonda and John Voight won best actress and actor Oscars for their performances in "Coming Home" at last week's Academy Awards ceremony. Another Vietnam war film, "The Deer Hunter," won the best picture award.

Finally, the 83rd annual Boston Marathon was held on April 16 with a record 7800 entrants as well as over 3000 more unofficial runners. Bill Rodgers of Melrose won the men's division for the third time with a US record time of 2 hours, 9 minutes, and 27 seconds. Joan Benoit of Cape Elizabeth, Me. won the women's division in a record 2 hrs., 35 min., and 11 seconds.

ELECTION RESULTS

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Student Gov't Vice-Pre		
Student Gov't Secretary		
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		Terri Bedard-288
Activities Commission	Reps	Patti Connor-406*
	Jeff Murdock-408*	Ken Watson-357*
	Louis Salamone-369*	Drew Donahue-352
		Open
University Council	and the Management of the	Bill Geary*
Bookstore Assoc	and the second second	Roger Temple*
Class of 1980	Pangtini a Pangtini .	
Drasident		Open
Vice President		Jane Fiske*
Secretary		Open
Treasurer		Open
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Nancy Bartlett* Karen Marritt* Charle		Jay Forrest*
James Nason* 3 Ope		Carol Sanborn*
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		Open
Class of 1981		
President		John Picciuto*
		Laurie Benjamin*
		Open
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Debert Scott* Tom	Tighe*	Victoria Shaloup*
Robert Scott 1011	pen	1 Open
Randy Suciliali 3 ()	DCII	Open
SUB Board of Director	rs	Diago Lampau*
		Diane Lamprey*
		Open
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		Jane Mack-87
Vice-President		David Rizos-135*
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Connie Demers* Thor		James Avaujo*
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	Roy*	Debbie Yelle*

Bookstore Assoc. University Council SUB Board of Directors Open

Prohibition Returns To ULowell

years, the right to drink has been taken away. At least for the 18 and 19 year olds that is. Last Monday, April 16, the legal drinking age was raised to 20 years. Under this new law, liquor can not be bought or consumed in public places by those under twenty years old.

The Rat has altered its format in which it will have nights in which liquor will be served (Mon., Tues., Thurs. and Fri.), and dry nights (Wed., Sat., and Sun.) in which non-alcoholic beverages will be served only. Due to the range in ages at the university (18-22) dormitory parties will no longer be allowed. Fraternities will suffer since some of their patrons were under 20. And there is talk that beer will only be served to those of legal age in a big tent during Spring Carnival. Police enforcement of this new law is expected to be strong during Spring Carnival and the general mood there is expected to be different than in years past.

It is clear that those who are determined to drink and are under age will find a way. They can have friends buy for them or they can travel a few miles to the New Hampshire border and get their supplies themselves.

There are many questions raised with this new law in effect. What's going to happen to the Rat next year? What about Spring Carnival? Is there going to be a Bogus Tug-a-Keg next year?.... The questions can go on and on. Many people are putting the blame on King, but he was elected by the

For the first time in over fifty people and one of his campaign promises was to raise the legal drinking age. How many people who are dissatisfied with this new law bothered to vote last year? That is where one of the problems lied. There was not enought interest in government. No one really thought this bill was going to be passed anyway.

It's too bad that some people

don't care about the passing of the drinking age bill since they are either 20 or older. Unfortunately they too will feel the effects of this law-in time. For a new age is upon us. The "party atmosphere" of the past will become confined to closed doors as the students of this University sober up to the reality that the party is over.

-Richard Allard

Energy Awareness

Monday, April 23 11:00-12:00

12:00-1:00 1:00-2:00 Room 222

South Campus Library 6:00-9:00

Multi-purpose room North Campus Library

Tuesday, April 24 9:30-12:00

Room 222 South Campus Library Room 222

South Campus Library 12:00-1:00

1:00-2:00

2:00-3:00 3:00-4:00 Continuous Slide Show: "The Export of Nuclear Reactors Abroad' Michael Bedford, American Friends Service Committee Film: NBC's "Danger: Radioactive Waste" Discussion following: Richard Bell, Energy Policy Information Center

Talk, Slide Show and Discussion: "Sotar Technology Norman Saunders, Saunders & Associates

1) NBC's "Danger: Radioactive Waste" (55 min.) 2) "Energy: The Nuclear Alternative" (Union of Concerned Scientists, 20 min.)

3) "Lovejoy's Nuclear War" (50 min.)

4) NRC's "Danger: Radioactive Waste"





ULowell SKIN & SCUBA DIVING CLUB UNDERWATER HOCKEY

MONDAYS AND WEDNESDAYS 3:30 - 5:30 AT THE POOL

Just bring a swim suit and gloves. MEN & WOMEN WANTED

Lowell Co-op Learning Center

Registration for free courses offered by the Lowell Cooperative Learning Center begins Monday April 23 and continues through Friday May 4. Over thirty courses will be offered including Intro. to Quilting, Wallpapering, Oil Painting, Accounting, Ceramics and Cake Decorating.

Most classes begin the week of May 7th. Registration is open to all adults in the Greater Lowell area. You can register for the free courses by calling LCLC at 458-7812 between the hours of 9:00 to 4:30 or by dropping in the Center located at 10 Kirk St. For more information contact Vera Quinlan, Coordinator.

Volunteer Opportunities

G.L.O.V.E. (Greater Lowell Opportunities for Volunteer Experience) announces the following current Volunteer positions:

LOWELL DAY NURSERY has a need for teacher assistants to relieve teachers when children are napping or eating. Also, a person who could play piano with the children for rhythm and singing, is needed. Love and patience with young children and/or ability to play the piano, would be essential for these positions.

CAMP PAUL, a summer day camp for multiplied handicapped children in Chelmsford, is currently seeking volunteers for the summer 1979 season, July 2 - August 10. Interested persons (minimum age: 14 years) are asked to assist group or activity leaders in various activities. Volunteers will work with campers on a one to one basis under supervised leadership. Orientation day (June 23) and on the job training provided by professional staff. Dependable, dedicated persons with willingness to involve oneself in a challenging position are sought. Transportation provided on camp bus - pick up at several central locations.

HOLY UNION SPECIAL SCHOOL, North Chelmsford, is looking for several teacher assistants to assist classroom teachers in fulfilling educational obligations/objectives of enrolled students. Persons with strong desire to work with handicapped children on a personal basis and/or experience with such, are sought. On-going training provided within multiple disciplinary staff format.

For information on the above opportunities or for additional information on volunteer opportunities within the Greater Lowell area, please contact GLOVE at Lowell City Library, Merrimack St., at 454-8821 ext. 284. GLOVE's office is open on Monday, Tuesday and Wednesday mornings from 10 to 12 noon. On Wednesday April 18th and April 25th, representatives from GLOVE will be at the Camp Paul Office, Central Square, Chelmsford. Staff members, Ann Kazer (256-3626) or Ellen Kunkel (256-2793) may be contacted at home

Energy Fair continued from page 3

6:00-9:00 Multi-purpose room North Campus Library

Wednesday, April 25

South Quadrangle

(behind cafeteria)

Multi-purpose room

North Campus Library

South Campus Library

South Campus Library

South Campus Library 10:00-11:00, 1:00-2:00

11:00-12:00, 2:00-3:00

12:00-1:00, 3:00-4:00

10:00-4:00

10:30-12:00

Room 327

2:30-4:00

Room 327

Room 222

6:00-9:00

Forum:
"Nuclear Economics: Jobs and Energy"

1) Frank Bove, Environmentalists for Full Employment

2) Leo McGuire, Student, ULowell3) Charles Adey, Stone & Webster

4) Mark Goldsmith, Energy Research Group

New England Coastal Power Show and Solar Displays

Workshop:
"Energy Systems"
Ambrose Spencer, Alternative
Technology Consultant
Workshop:
"The Karen Silkwood Case"
Judith Rancore
Workshop:
"Alternative Technology"

Robert Case

Films:

"Energy: The Nuclear Alternative"
and "Nuclear Reaction at Wyhl"
NBC's "Danger: Radioactive Waste"
"Lovejoy's Nuclear War"
Forum:
"The Medical Implications of
Nuclear Energy"
1) Kathryn Kahn, M.D. Worcester
Medical Center
2) Dr. Kenneth Skrable,

Radiological Health Physics, ULowell Forum:
"The Political Economy of Nuclear Energy"

1) Dr. John Edmond, MIT
2) Dr. James Sheff, Nuclear
Engineering, ULowell

Film: "Danger: Radioactive Waste"

Thursday, April 26 10:30-11:30 Multi-purpose room North Campus Library and 1:00-2:00 Room 222

South Campus Library 11:30-12:30 Multi-purpose room North Campus Library

and

Film:
"Energy: The Nuclear
orary Alternative"

2:00-3:00 Room 222 South Campus Library 1:30-2:30

Multi-purpose room North Campus Library and

North Campus Lib 10:00-11:00 Room 222

South Campus Library

2:30-3:30

Multi-purpose room Wyhl'
North Campus Library and

11:00-12:00 Room 222

South Campus Library 7:00-9:00

Multi-purpose room
North Campus Library

"The Harrisburg Nuclear Power Plant Accident" Dr. Howard Shrobe, MIT

Film: "Lovejoy's Nuclear War"

Film: "Nuclear Reaction in

At all the events there will be tables displaying literature on energy-related

Sponsored by The Sociology Club and Mass. PIRG

SOPHOMORES!

LOWELL

students can take Army ROTC at

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If you're interested in
Financial Benefits
Leadership/Management Experience
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Army ROTC. Learn what it takes to lead. CALL: 437-2376

ARMY ROTC. THE TWO-YEAR PROGRAM.



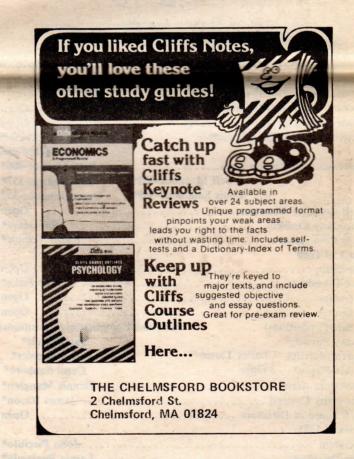
Annual Spring Banquet

7:00 pm in the south campus cafe

cocktail hour at 7:00 pm buffer dinner at 7:45 pm admission: \$3.00 per person

college of music graduate students, a light program, and the announcement of 1979-80 officers will be featured.

graduate students and faculty are encouraged to attend. tickets may be purchased from susan williams, joe russo, carol karalow (chemistry dept.) or jim tarpinian (radiological health).





Song Writers

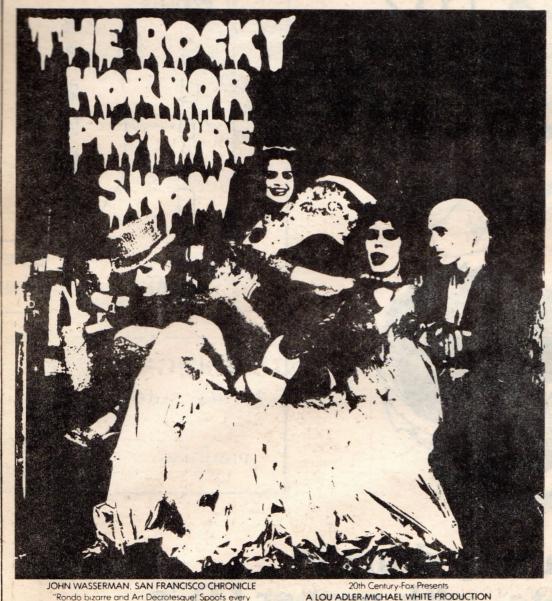
I can help you prepare your material for a professional presentation which publishers demand.

MASTER QUALITY DEMOS Call Jim at 453-0743 after 6 p.m.









A LOU ADLER-MICHAEL WHITE PRODUCTION THE ROCKY HORROR PICTURE SHOW Starring TIM CURRY . SUSAN SARANDON BARRY BOSTWICK

Original Musical Play, Music and Lyrics by RICHARD O'BRIEN Screenplay by JIM SHARMAN and RICHARD O'BRIEN

FILMS INCORPORATED

monster film since KING KONG, comic books,

pulp detective mysteries, DICK AND JANE, rock and roll,

KEVIN THOMAS, LOS ANGELES TIMES

"Simply too exuberant and too funny to be

and sexual confusion

seriously decadent." Directed by JIM SHARMAN

SPORTS CAR **CLUB**

"Pylons Everywhere" **Autocross**

SUNDAY APRIL

THE THE



REGISTRATION 10:00 A.M. — 1st CAR OFF 12:00 NOON SOUTH CAMPUS PARKING LOT, BROADWAY & WILDER

SPRING C Friday, April 27, 1979

Lowell,

DAY BANDS

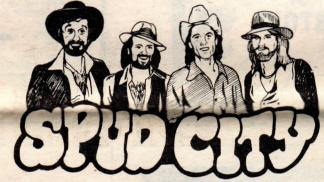
Time Approximate

11:00 am to 12:00 Jazz/Funk



Ellis Hall Group

12:30 pm to 1:30 Country Rock



2:00 pm to 3:00 Commercial Rock



3:30 pm to 4:30 Hard Rock



SPRING CARNIVA APARTMENTS XXXXXXXXFENCE STAGE TENTS FOR FENCE BOOTHS BOOTHS 工 BEER BEEF TENT TEN. DAYTIME SHOW 10AM - 6PM 8 pm - 1130 MIGHT SHOW PARKING LOT SPEARE +

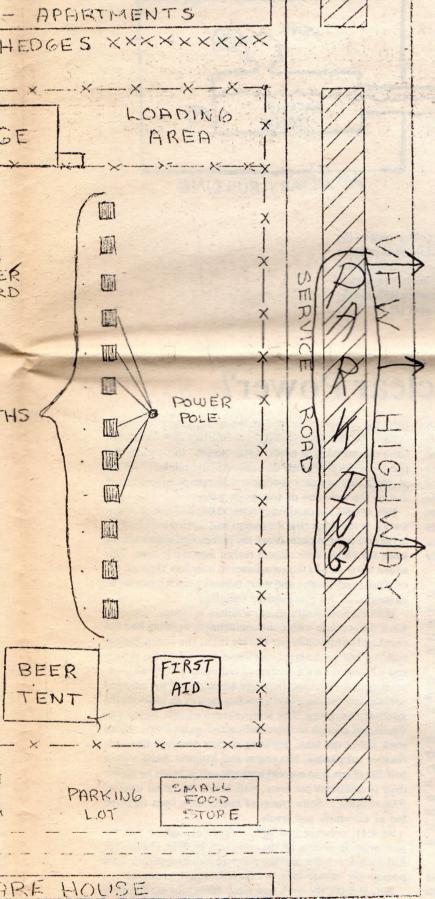
Remember—You can only drink in designated Beer Tents, with proper I.D.'s Please do not screw up things—

BEHAVE YOURSELVES!

CARINWALL 79 Regatta Field

ell, Mass.

NIVAL LAYOUT '79



NIGHT BANDS

Starting at about 8:00 P.M.

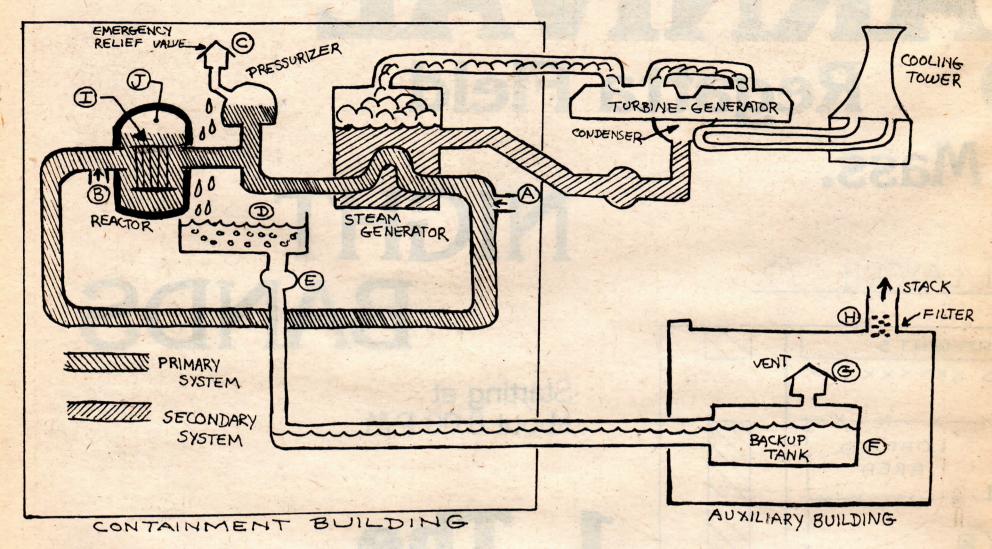
- 1. The
 Flaherty
 Brothers
- 2. Granadi Brothers

3. SOUTHSIDE JOHNNY

and the

Asbury Jukes

Three Mile Island: What Really Happened?



Plant Diagram

The major problem began when emergency feedwater pump valves (A) were blocked. The emergency core cooling system (B) overcompensated and water overflowed through the malfunctioning relief valve (C) in the pressurizer into a basement tank (D). When pressure in that tank rose, valve (E) began to transfer water to backup tank (F) in auxiliary building opened automatically, as expected. When water began to shift unexpectedly between tanks, operators, not knowing that the water contained radioactive elements, opened vent (G) on backup tank. Radioactive gases went into auxiliary building, passing through ventilating system filters and up stack (H), releasing xenon-133 into the atmosphere. Later, overheating of control rods and fuel casings (I) released hydrogen which collected at top of reactor core (J).

Three Mile Island:

Setback or Swan Song for Nuclear Power?

Part I: What Really Happened?

Every day, someone holding a high office in this country makes some kind of statement about energy, a subject that has dominated the news since the Arab oil embargo in 1973. But, since March 28, a news story on an energy situation has dominated the news and will continue to do so for months to come. The place was Middletown, Pa.; the event was the first major nuclear power plant accident in this country. The accident at the Three Mile Island power plant resulted in the voluntary evacuation of 50,000 people from the Harrisburg area, constant fear of radioactivity leaks by the two million residents living within the 50 miles downwind from the plant, and a nation and world in shock.

Even now, as the reactor rapidly approaches a cold shutdown and residents return to their homes, the accident is being discussed every day by top government officials. A Senate investigation of the accident is under way. Protesters have taken to the streets of Boston, Washington, and many other cities to protest nuclear power. The Clamshell Alliance has called for the shutdown of every nuclear power plant in the country. There have been unconfirmed reports of radioactive materials in cow's milk in the Harrisburg area and rumors of an attempted cover-up of the situation by the Metropolitan Edison Company, the electric company which runs Three Mile Island. On top of everything else, it has now been over two weeks since the accident and no one is a hundred-percent sure about exactly what happened.

For the last two weeks, I have been trying to cover this accident for The Connector and I'm about as confused as anyone. I have read every article and seen every news show concerning the accident, trying to find an objective, factual report on the situation and its repercussions. Until last week, I had found little or no objectivity since most of the information was released by the government which wasn't sure what happened, anti-nuclear forces warning of doomsday, pro-nuclear forces trying to play down the incident, or the media which was trying to make as big a story as possible of the incident. However, by piecing bits of information together and by attending a seminar on the subject last week, I have been able to write this article on what happened and what will happen as a result of the accident, and, in the process, clear up some of the

To understand the accident, a basic understanding of the power plant mechanism is necessary. The main point of focus is on the primary reactor cooling system. The fission of fuel occurs in the reactor core. This process produces heat which warms the cooling system's water from 55°F to

300°F. (Note that the water does not boil, even though it is above the boiling point, due to pressure.) This hot water is then pumped into a steam generator where it heats up water in a secondary cooling system, converting the second system's water into steam. This steam is transfered outside the containment building, which houses the reactor, to a turbine-generator where it generates electricity. The steam is then condensed and returned to the steam generator. The primary system, having given up its heat to the secondary system, is returned to the reactor where it can be reheated.

The trouble began two weeks before the accident occurred. At that time, it is believed that a maintenance crew, which was inspecting the emergency cooling system, left two emergency feedwater valves closed. This is not the only emergency cooling system present, but it is the first one activated in case of emergency.

The accident itself began at 4 a.m. on Wednesday, March 28 when the condensate pump in the secondary cooling system malfunctioned, resulting in the closing of valves within the system. This situation made it impossible to release steam from the steam generator to the turbine. More importantly, heat could not be transferred from the primary cooling system to the secondary system since the secondary system was essentially shut down. This type of accident is not serious and happens in many reactors once or twice per year. However, this was compounded by the fact that the emergency feedwater valves were closed, as mentioned earlier. Thus, the reactor could not be cooled in the normal manner.

At about three or four seconds into the accident, the reactor began to heat up, which increased the pressure in the system. The pressurizer in the primary system sensed this and opened a relief valve to let off steam into the containment building. At ten seconds after 4:00, the reactor, sensing the heat build up, stopped the fission process and the control rods were inserted, shutting down the reactor. This action cut heat production of the core to 10% of the normal amount. However, some residual heat remained since radioactive products which had already reacted would continue to produce heat until they were exhausted. This heat had dropped to 1/60% last week and the last bit is being lost this week. This is a normal cooling process.

At 15 seconds after the initial accident, the fourth malfunction occured. At this point, the relief valve in the pressurizer should have closed but it did not and the pressure within the pressurizer dropped due to the continued release of steam through the valve. At 4:02, the low pressure signal

from the pressurizer turned on the emergency core cooling system. But this action filled the pressurizer with water and, since the pressurizer needs steam present to operate, the pressurizer level went off the scale. At 10½ minutes into the accident, the two core cooling system pumps were shut off due to the presence of too much water.

But, at 4:08, the emergency water valves had been opened, and all of the water that the pumps had carried to the valves in the past eight minutes (since the pumps had been working when the valves were closed) rushed into the system. This added water caused the pressurizer to overflow through the emergency relief valve and water fell into a catch basin in the basement of the containment building.

Here the fifth malfunction, a failure in design, occured. Since the pressure within the containment building had not reached four pounds per square inch, the containment building had not isolated itself from the rest of the system and the water, which contained radioactive elements, was automatically pumped from the basement of the shielded containment building into a holding tank in an unprotected auxiliary building. The temperature of this water was significant enough to drive radioactive gases into a smoke stack above the tank. Filtering devices removed the most reactive substances, but xenon and krypton (each with a half-life of less than a week) were released at levels no higher than 10 millirems per hour, well below the lethal level of 5000 millirems. Some traces of iodine have been reported but at extremely low levels.

At 4:11, pressure had been reduced enough to put the pressurizer level back on the scale and, by 5:15, the reactor had cooled to 550°F and the pressure had dropped to 2000 pounds per square ince, a relatively stable condition.

But, at 6:00, the sixth and most dangerous malfunction occured. The operator shut down the reactor's cooling pump to allow a gradual cooling of the core. Pumps should have not been necessary since natural water circulation should have taken over. Instead, for some unkown reason, the core heated up to 1000°F which heated up the water and forced radioactive gases through the open valve in the pressurizer and into the auxiliary building in the manner previously described. Also, hydrogen gas normally present in the cooling system was boiled out and collected at the top of the reactor core. The heat of the core also melted some of the zirconium coating of the fuel rods which released more hydrogen gas. In addition, some of the hydrogen may have been drawn into the pressurizer and ignited. This severe damage to the reactor prompted Metropolitan Edison to alert Pa. Governor Richard Thorburgh and the NRC.

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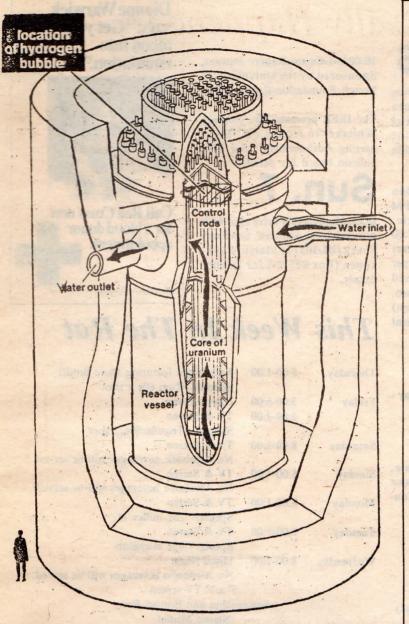


Chart shows the flow of water through the reactor. After entering, it flows up through the core and then out to the steam generator. The hydrogen bubble at the top of the core prevented the water from immersing the upper portion of the control rods, causing the rods to overheat and preventing normal cooling from taking place.

3 Mile Island

(continued from page 8)

At about 10 a.m., pressure was re-established in the system and officials thought they had the reactor under control and started to cool the reactor again by flooding the core. But, at about 2 p.m., ten hours after the ordeal had begun, the hydrogen gas which had escaped through the pressurizer into the containment building exploded. No damage was done to the four-foot-thick concrete walls of the containment building. Finally, at 8 p.m., the reactor was put into the "stable condition" which lasted through the weekend, except for the release of 90 millirem puff of radioactive gas on Friday, March 30 at 3 p.m. This was caused by the accidental opening of a pipe full of radioactive gas by two workers who were trying to reroute plumbing.

The most troublesome problem was the hydrogen gas on top of the reactor, which was not discovered until Friday, March 30. If the bubble expanded, it could have blocked the cooling system causing the reactor to heat up which could have resulted in the melting of the fuel. Also, oxygen gas had entered the system through the relief valve in the pressurizer and through water dissociation due to the radioactivity and, if the bubble was left alone for a week, enough oxygen could have entered to cause an explosion if a spark was

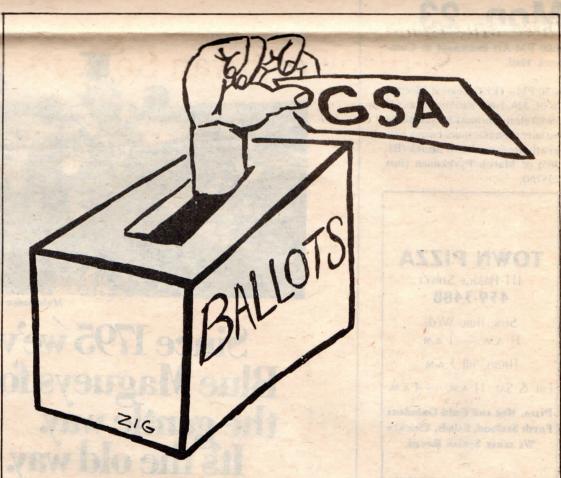
present. The solution found, thanks to "a little bit of luck and a little bit of foresight" according to NRC spokesman Harold Denton, was a bypass of the cold water into the pressurizer. This lowered pressure, allowing the hydrogen to escape through seals in the piping. With the bubble out of the way, normal cooling could resume and the reactor began its final cooling to a cold shutdown (water temperature below the boiling point) this weekend.

Thus, although this accident was serious and it could take up to two years to repair the damage, the actual damage to the people of the Harrisburg area was minimal. But the more important result of this accident has been emotional trauma for the public and a reassessment of nuclear power. Next week, I'll take a look at the confusion which has been involved in the accident from the start as well as the after effects and the alternatives proposed by various factions as a result of the worst nuclear power accident in this country's history.

(I would like to thank Dr. Brown and Dr. Sheldon of the Physics Dept., Dr. Skrable of the Radiological Health Dept. and Dr. Litman of the Radiochemistry Dept. for their cooperation and their participation in the excellent seminar last Tuesday on this subject.)

-Bob Weisman





The GSA, Graduate Student Association, is holding elections for 1979-80 officers. Nominations are open for president, vice-president, secretary, treasurer, senators, and faculty advisor. Ballots can be obtained from Susan Williams (Chemistry Dept. or BALL-324).

The deadline is April 25, 1979. Election results will be announced at the GSA Annual Spring Banquet, April 26, 1979.

MYSTERY CONCERT MAY

THE CALENDAR

APRIL Thurs. 19

IEEE Student Conference to Southwestern Massachusetts University. Lectures, seminars, demonstrations, workshops and a wine and cheese party. The conference runs through April 21.

7:00 PM—"The Event of the Year; The English Dept. Roasts Arthur Friedman!" In the theatre on the third floor of Fox Hall. Tickets for members—\$1.50; non-members—\$2.00. Tickets may be purchased from any Literary Society member.

Film-Realms of the Fantastic and Dada and Neo Dada, Ant Department, Dugan Building, South Campus.

8:00 PM—Percussion Ensemble conducted by Everett Beale, performs in a joint concert with the Studio Orchestra II, under the direction of Fred Buda.

Fri. 20

9:00 AM—Radiological Science's will sponsor an Open House. There will be a tour through the Nuclear Center.

Sun. 22

3:00 PM—Baritone Ralph Farris of the University College of Music faculty. Durgin Hall.

Mon. 23

8:00 PM-Art Buchwald at Cumnock Hall.

4:30 PM—IEEE General Meeting in BL 326. Nominations forms for 79-80 elections must be submitted no later than this time. Forms now available from Prof. Spurk (BL 305) or Martin Pyykkonen (Box 2357N).

TOWN PIZZA

411 Bridge Street 459-3488

Sun. THRU WED.

11 A.M. — 1 A.M.

Thurs. till 3 A.M.

Fri. & Sai. 11 a.m. — 4 a.m.

Pizza, Hot and Cold Grinders Fresh Seafood, Salads, Chicken We serve Syrian Bread.



8:00 PM—Heritage Brass Quintet, faculty members Natallo Paella, Jeanne Paella, Susan Fleet, Gary Shaw, and Gary Offenloch in a program including "Sonatine" by Eugene Bozza, "Quintet No. 3" by Victor Ewald, "Four Movements for Five Brass" by Collier Jones, and a reorchestrated Bach Fugue. Durgin Hall.

Tues. 24

11:00 AM - Watercolor Demonstration and Lecture. Art Department, Dugan Building, South Campus.

9:00 AM - The Pre-Law Society will have a trip to Harvard School of Law. Busses leave from 229 Olson.

Wed. 25

Deadline for Graduate Students Assoc. election ballots. Nominations are open for president, vice-president, secretary, senators and faculty advisors. Ballots can be obtained from Susan Williams (Chemistry Dept. or Ball 324).

Deadline for registration by mail for Evening Programs in the Graduate School Summer Session which will run from May 7 to August 24. People can still register in Ball Hall, Room 214; May 25 from 6:30 to 8:00 PM.

Secretaries Day

Thurs. 26

11:00 AM—Film: "Hundertwasser's Rainy Day". The German artist Hundertwasser is seen at work. His background and the process of creation is examined in this film.

Graduate Student Association Annual Spring Banquet, 7:00 PM in South Campus Cafeteria. Cocktail hour will start at 7:00 PM. The Buffet dinner will start at 7:45 PM. Tickets are \$3.00 per person and may be purchased from Susan Williams, Joe Russo, Carol Karalow (Chemistry Dept) or Jim Tarpinian (Radiological Health Dept).

Fri. 27

Spring Carnival - University Day - University closed

Sun. 29

7:00 PM - Collegiate Chorale, Ralph Farris, Conductor. Major Work: Poulenc's "Gloria" Concert Hall.

MAY Tues. 1

11:30 AM - Pre Law Society Elections. Room 306 Olsen.

Wed. 2

10:00AM-Guitar:Robert Squires, Sponsored by the University of Lowell Foundation-Recital Hall.

The IEEE presents Mr. Norman Whitaker to lecture on "Engineering Advancement" See E.E. bulletin board for details.

Sun. 7

IEEE Membership drive send with prizes to be announced. See Prof. Spurk (BL305) or Martin Pyykkonen (Box 2357N) for further details

Call Red Cross now for a blood donor appointment.

This Week In The Rat

8.00-1.00	Folk Night featuring Dave Binder
0.00-1.00	Special—Rum 60¢ a shot
3:00-6:00	Happy Hour
8:00-2:00	TV & Stereo
	Special—Tequila 60¢, a shot
8:00-1:00	TV & Stereo
	No Alcoholic beverages will be served
8:00-1:00	TV & Stereo
	No Alcoholic beverages will be served
8:00-1:00	TV & Stereo
	Special—25¢ miller/lite
8:00-1:00	TV & Stereo
	Special—45¢ michelob
8:00-1:00	Disco Night
	No Alcoholic beverages will be served
	5' x 7' TV screen
	8:00-2:00 8:00-1:00 8:00-1:00 8:00-1:00

Sandwiches and Bottled Beer Stereo Music!

The Rathskellar will close at 6:00 (after Happy Hour) every Friday and will reopen at 8:00.



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INTRAMURAL ACTIVITIES

P.H.M. To Advance In Schlitz Intramural Olympics

Intramural Track Meet Entries Due: Friday, April 20th, 1979 Meet to be held: Tuesday, May 1, 1979 Rain Date: Tuesday, May 8, 1979 Order of Events to be Posted: Tuesday, April 24th, at the Intramural Entry Limits: An individual may enter: 2 Running Events 1 Running Event 1 Field Event 2 Field Events 1 Relay Event 1 Relay Event A Team may enter only 2 members per event. Tear & Submit to I.M. Office INDIVIDUAL ENTRY ROSTER — TRACK MEN _____ Box No.____ Tel. No.____ Room No.. Name_ Please check events that you wish to participate in: Javelin _ 100 vd Dash ______ 220 yd Dash _ _ _ _ _ _ Discus _ _ _ _ _ _ _ _ _ 440 yd Dash ______ 880 yd Run ______ High Jump _ _ _ Mile Run Long Jump 2 Mile Run _ _ _ _ _ _ _ *NOTE: Spikes are allowed. Mile Relay _ _ _ _ _ _

INTRAMURAL 1979 SPRING ROAD RACE APRIL 24th, 1979

ENTRY BLANK

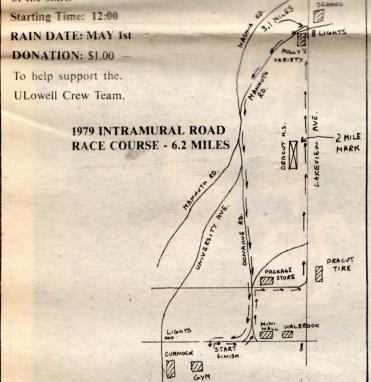
NAME. _

LAST

FIRS

All participants must be registered by April 20th.

Entry Blanks are to be brought to the Costello Gymnasium (Rm. 304) where NUMBERS will be picked up. NUMBERS will not be given out the day of the race. NUMBERS are to be pinned onto the front of the shirt.



University of Lowell's allcampus men's intramural team, P.H.M., travels to Rhode Island Junior College to compete in the Schlitz Intramural Olympics regional championships April 21

P.H.M. and 11 other regional competitions will pare the nation's top 200 men's and women's teams to 12 each that will advance to the Schlitz Intramural Olympics National Finals at the University of Miami (Florida) on May 5 and 6.

The Schlitz Olympics began last September to determine the contry's best college intramural teams for the current academic year.

Special scoring was used in selecting all-campus winners to reflect differences in the 200 participating schools' intramural programs. The Schlitz regional and final championships will feature standard competition in track, basketball, volleyball and swimming.

"Our nation has a vast population of students who love sports but who cannot participate in intercollegiate athletics," said William Gorman, Schlitz Manager of Special Events. "The Schlitz Intramural Olympics is our special effort to recognize all these people and to encourage them to remain active in sports all their lives," he said.

The progam is one of the most far-reaching intramural competitions ever sponsored by a corporation or educational association and is Schlitz Beer's most ambitious and exciting campus program to date, Gorman said.

Participating college intramural directors are pleased because the Schlitz Intramural Olympics program has strengthened intramural programs by focusing on competition and participation through a full college year, he noted.

A full range of informational and commemorative materials supports the program, including posters and bulletin board annoucements, t-shirts for members and coaches of teams that make the regionals, trophies and individual t-shirts for all regional winners, and trophies and individual prizes awarded to the national champions.

Dr. Phelps of the Nuclear Engineering Department will give a lecture entitled "How to Decide About Nuclear Energy". The Lecture is Wednesday April 25th at 3:00. It is sponsored by the Philosophy Club and all are invited. Saturday April 21st 1979 7:00 P.M. Sunday Mass. Newman Center

Sunday April 22nd 1979 7:00 P.M. Sunday Mass. Newman Center

Congratulations to the BULL-MOOSE PARTY. Hey Louis, my dog is getting desperate for some good cheese. What's Bull-Dike?

Attention Beatles fans: Trivia Quiz—In "You Never Give Me Your Money" (Abbey Road), which Beatle sings: "Out of college, money spent See no future, pay no rent__" Reply B.M. Box 1275 N

Phil, I hope your 21st is the best ever! It's kinda nice to be going out with an older man. I haven't quite figured out whether it was the bean bag chair or sophisticated lines that first attracted me to you, but I do know that I'll never have my "fill" of you. Happy Birthday! Love, Your kooky elf with the Xmas tree eyes.

67 Fastback—Try to top me again Sunday! —70 MACH

Intramural Racquetball Tournament Results

Men's Singles
All University Champion:
Dan Zabbo
Men's Doubles:

Dan Zabbo-John McHale
Women's Singles
All University Champion:

Lauren Chin

Women's Doubles: Lauren Chin-Deborah Quadri

Co-ed:
All University Champions:
Lauren Chin-Phil Popat



Men's All-University Racquetball Champion Dan Zabbo



Men's Doubles All-University Racquetball Champions Dan Zabbo (L) and John McHale (R).

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1974 HONDA MT250: 1 cyl., 2-stroke, excellent condition, good-for woods or street riding. Contact Mark Gravel, Bourgeois Basement, Rm. 3. Tel. 452-8825.

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SUMMER JOBS, NOW! World Cruisers! Pleasure Boats! No experience! Good Pay! Carribean, Hawaii, World! Send \$3.95 for application and direct referrals to Seaworld DT, Box 60129, Sacramento, CA 95860.

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